

U.S.S.N. 10/757,616
Attorney Docket No.: MBZ-001CN

Group Art Unit: 1637
Examiner: Heather Calamita

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

Claims 1-72 (Canceled).

73. (New) A method for identifying small molecules relevant to a nervous system disorder, comprising:
obtaining a small molecule profile of a sample from a subject suffering from a nervous system disorder; and
identifying the small molecules relevant to said nervous system disorder using the small molecule profile, wherein said small molecule profile is obtained using one or more techniques which detect 50% or more of the small molecules in said sample.

74. (New) A method for identifying small molecules relevant to a nervous system disorder, comprising:
obtaining a small molecule profile of a sample from a subject suffering from a nervous system disorder; and
identifying said small molecules relevant to said nervous system disorder using the small molecule profile, wherein said small molecule profile comprises information regarding 50 or more small molecules.

75. (New) A method for identifying small molecules relevant to a nervous system disorder, comprising:
obtaining a small molecule profile of a subject suffering from a nervous system disorder; and
identifying the small molecules relevant to said nervous system disorder using the small molecule profile, wherein said small molecule profile comprises information regarding the presence of electrochemically active and electrochemically neutral small molecules.

76. (New) A method for identifying small molecules relevant to a nervous system disorder, comprising:

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obtaining a small molecule profile of a subject suffering from a nervous system disorder, using two or more of the following techniques: HPLC, TLC, electrochemical analysis, mass spectroscopy, refractive index spectroscopy (RI), Ultra-Violet spectroscopy (UV), fluorescent analysis, radiochemical analysis, Near-InfraRed spectroscopy (Near-IR), Nuclear Magnetic Resonance spectroscopy (NMR), and Light Scattering analysis (LS); and

identifying the small molecules relevant to said nervous system disorder using the small molecule profile.

77. (New) A method for identifying small molecules relevant to a nervous system disorder, comprising:

obtaining a small molecule profile of a subject suffering from a nervous system disorder; and

identifying the small molecules relevant to said nervous system disorder using the small molecule profile, wherein said small molecule profile comprises information regarding the presence of two or more types of small molecules selected from the group consisting of: sugars, fatty acids, amino acids, nucleotides, metabolites, and products of catabolism.

78. (New) A method for identifying small molecules relevant to a nervous system disorder, comprising:

obtaining a small molecule profile of a subject suffering from a nervous system disorder using one or more of the following techniques: TLC, electrochemical analysis, mass spectroscopy, refractive index spectroscopy (RI), Ultra-Violet spectroscopy (UV), fluorescent analysis, radiochemical analysis, Near-InfraRed spectroscopy (Near-IR), Nuclear Magnetic Resonance spectroscopy (NMR), and Light Scattering analysis (LS); and

identifying the small molecules relevant to said nervous system disorder using the small molecule profile.

79. (New) The method of any one of claims 73-78, wherein said nervous system disorder is a neurodegenerative disorder.

80. (New) The method of claim 79, wherein said nervous system disorder is neuropathy, Alzheimer disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, motor neuron disease, traumatic nerve injury, multiple sclerosis, acute

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disseminated encephalomyelitis, acute necrotizing hemorrhagic leukoencephalitis, dysmyelination disease, mitochondrial disease, migrainous disorder, bacterial infection, fungal infection, stroke, aging, dementia, peripheral nervous system diseases, mental disorder, depression or schizophrenia.

81. (New) The method of claim 80, wherein said nervous system disorder is amyotrophic lateral sclerosis.

82. (New) The method of any one of claims 73-78, wherein said subject is a human.

83. (New) The method of any one of claims 73-78, wherein said small molecule profiles are obtained from said subject's blood, spinal fluid, serum, cells, tissue, or cellular organelles.

84. (New) The method of any one of claims 73, 74, 75, or 77, wherein said small molecule profiles are obtained using one or more of the following: HPLC, TLC, electrochemical analysis, mass spectroscopy, refractive index spectroscopy (RI), Ultra-Violet spectroscopy (UV), fluorescent analysis, radiochemical analysis, Near-InfraRed spectroscopy (Near-IR), Nuclear Magnetic Resonance spectroscopy (NMR), and Light Scattering analysis (LS).